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cont.

a decoder which decompresses the compressed data;  
a RAM which stores a decoded data by the decoder;  
a driver which is connected to a electrode of the display section; and  
a controller which controls the decoder, the RAM and the driver,  
wherein the same decoded data is read out from the RAM at least two times,  
which the decoded data is decoded for one frame and written into the RAM.--

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#### REMARKS

Claims 1-24 are pending. By this Amendment, claims 1-3 are amended, and claims 22-24 are added. Claims 16-21 have previously been withdrawn from consideration. Reconsideration based on the above amendments and the following remarks is respectfully requested.

The attached Appendix includes marked-up copies of each rewritten claim (37 C.F.R. §1.121(c)(1)(ii)).

The Examiner is thanked for the many courtesies extended to Applicants' representative in the course of a personal interview conducted February 13, 2003. The substance of that interview is included herein per MPEP §713.04.

#### I. The Claims Define Allowable Subject Matter

The Office Action rejects claims 1-15 under 35 U.S.C. §102(b) as unpatentable over U.S. Patent No. 5,914,955 to Rostoker et al. ("Rostoker"). These rejections are respectfully traversed.

With respect to claims 1 and 3, Rostoker does not disclose a semiconductor device including, "an input terminal to which compressed data is input, wherein various types of multiplexed data is demultiplexed into a single type of demultiplexed data to form compressed data, which is the only data being transmitted through a bus and input to the input terminal," as recited in independent claims 1 and 3. Accordingly, the semiconductor

device of the claimed invention includes interface functions between input-output devices that avoids over specification and enables reduction of excess power consumption caused by wasteful data transmission through the bus.

Instead, Rostoker discloses data compression and depression for different types of data for display and non-display as illustrated in Figs. 1 and 2. Additionally, as shown in Figs. 2-5, the MPEG audio and video compression/decompression encoder/decoder circuits 329 transmit different types of data through a common bus. Thus, Rostoker is not directed to mounting the circuits 329 on mobile devices. Accordingly, if the circuits 329 were mounted on the mobile devices, it would create over specification and would have resulted in wasteful power consumption. Therefore, Applicants have found no indication in the applied art of the "input terminal to which compressed data is input, wherein various types of multiplexed data is demultiplexed into a single type of demultiplexed data to form compressed data, which is the only data being transmitted through a bus and input to the input terminal," as recited in independent claims 1 and 3.

With regard to claim 2, Rostoker does not disclose a semiconductor device including, "an input terminal to which uncompressed is input from the input device, wherein the uncompressed data is a single type of data, which is the only data being transmitted through a bus and input to the input terminal," as recited in independent claim 2. Accordingly, the data compressed by the semiconductor device of the claimed invention is multiplexed with other compression data. Thus, the claimed invention includes interface functions between input-output devices that avoids over specification and enables reduction of excess power consumption from wasteful data transmission to the bus.

Instead, Rostoker discloses data compression and depression for different types of data for display and non-display as illustrated in Figs. 1 and 2. Additionally, as shown in Figs. 2-5, the MPEG audio and video compression/decompression encoder/decoder circuits

329 transmit different types of data through a common bus. Thus, Rostoker is not directed to mounting the circuits 329 on mobile devices. Accordingly, if the circuits 329 were mounted on the mobile devices, it would create over specification and would have resulted in wasteful power consumption. Therefore, Applicants have found no indication in the applied art of the "input terminal to which uncompressed data is input from the input device, wherein the uncompressed data is a single type of data, which is the only data being transmitted through a bus and input to the input terminal," as recited in independent claim 2.

Accordingly, Applicants respectfully assert that the rejections under 35 U.S.C. §102 should be withdrawn because the applied art does not teach each feature of independent claims 1-3.

For the same reasons discussed above with respect to claims 1-3, Applicants respectfully assert that new claims 22-24 are allowable.

As pointed on in MPEP §2131, "[t]o anticipate a claim, the reference must teach every element of the claim." Thus, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987)."

As indicated in our February 13 personal interview with Examiner Mondt and his supervisory SPE Flynn, the amendments to claims 1-3 overcome the current rejections.


For at least these reasons, it is respectfully submitted that independent claims 1-3, 22 and 24 are distinguishable over the applied art. The remainder of the claims that depend from independent claims 1-3, 22 and 24 are likewise distinguishable over the applied art for at least the reasons discussed above, as well as for the additional features they recite.

II. Conclusion

For at least these reasons, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-24 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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JAO:JML/vgp

Attachments:

Appendix  
Petition for Extension of Time  
Amendment Transmittal

Date: March 4, 2003

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## APPENDIX

## Changes to Claims:

The following is a marked-up version of the amended claims:

1. (Amended) A semiconductor device for output interface having an interface function with an output device, the semiconductor device comprising:
  - an input terminal to which compressed data is input, wherein various types of multiplexed data is demultiplexed into a single type of demultiplexed data to form compressed data, which is the only data being transmitted through a bus and input to the input terminal;
  - a decompression section which decompresses the compressed data; and
  - an output terminal for outputting data decompressed by the decompression section to the output device.
2. (Amended) A semiconductor device for input interface having an interface function with an input device, the semiconductor device comprising:
  - an input terminal to which uncompressed data is input from the input device, wherein the uncompressed data is a single type of data, which is the only data being transmitted through a bus and input to the input terminal;
  - a compression section which compresses the uncompressed data; and
  - an output terminal for outputting data compressed by the compression section.
3. (Amended) A semiconductor device for driving a display section, the semiconductor device comprising:
  - an input terminal to which compressed data is input, wherein various types of multiplexed data is demultiplexed into a single type of demultiplexed data to form compressed data, which is the only data being transmitted through a bus and input to the input terminal;
  - a decompression section which decompresses the compressed data; and
  - an output terminal for outputting data decompressed by the decompression section to the display section.

Claims 22-24 are added.

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